WHAT IS CLAIMED IS:

1.   An image processing method comprising the steps of:

operating on a pixel-by-pixel basis texture coordinates
and LOD (Level of Detail) values from object data;

determining based on the LOD values a filtering domain
of texels read from a texture memory; and

acquiring a weighted average depending on said texture
coordinates and the size of said determined filtering domain
to create a texture color to be pasted to said object.

2.   The image processing method according to claim 1, wherein
said texel read from said texture memory is determined
based on said operated texture coordinates and LOD values.

3.   The image processing method according to claim 1, wherein
determination of said texel filtering domain is
performed by use of two or more dimensional LOD values.

4.   The image processing method according to claim 1, wherein
in the process of determining said texel filtering domain,
an offset value is added with a predetermined preset parameter
to modify said LOD values.

5.   The image processing method according to claim 1, wherein
in the process of determining said filtering domain,
depending on said LOD values and a parameter for designating

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the manner of selecting a plurality of mipmap data, one of the

plurality of mipmap data stored in the texture memory is

selected.

5   6.   The image processing method according to claim 1, wherein

in the process of determining said filtering domain, the

number of texels required to acquire a texture color is

determined in accordance with a predetermined flag.

10   7.   The image processing method according to claim 5, wherein

in the process of determining the filtering domain,

depending on a parameter for selecting whether or not a

plurality of values of said LOD values are to be unified to any

one, said LODs are unified to any one in compliance with said

15   parameter for designating the manner of selecting said

plurality of mipmap data.

8.   The image processing method according to claim 1, wherein

said step of acquiring said weighted average includes:

20   acquiring a blend ratio and a decision flag in said

filtering domain from said texture coordinates and said

filtering domain;

deciding, by said decision flag, texels to be excluded

from the object for acquiring the weighted average, out of said

25   texels read from said texture memory; and

acquiring the weighted average of said texels as the

object in accordance with said blend ratio.

9. The image processing method according to claim 8, wherein said step of determining said filtering domain further includes:

modifying said LOD values with a predetermined parameter and determining a final filtering domain based on a flag indicative of how many texels are to be used to acquire a texture color; and

in case of selecting a mode of four texels by said flag indicative of how many texels are to be used to acquire a texture color, setting said decision flag corresponding to which one of four-divided domains of a texel positioned centrally of nine texels contains the center point of said filtering domain.

10. The image processing method according to claim 8, wherein said step of determining said filtering domain further includes:

modifying said LOD values with a predetermined parameter, and determining a final filtering domain based on a flag indicative of how many texels are to be used to acquire the texture color; and

in case of selecting a mode of nine texels by said flag indicative of how many texels are to be used to acquire the texture color, indicating said blend ratio and decision flag correspondingly to four areas into which said nine texels are divided by lines passing through the center of said filtering domain, a first one of said four areas containing the upper left

vertex of said filtering domain, a second one of said four areas containing the upper right vertex of said filtering domain, a third one of said four areas containing the lower left vertex of said filtering domain, and a fourth one of said four areas

5   containing the lower right vertex of said filtering domain.

11.   The image processing apparatus, comprising:

a circuit for operating texture coordinates and LOD (Level of Detail) values on a pixel-by-pixel basis from object

10   data;

a circuit for determining a filtering domain of a texel read from a texture memory, based on said operated LOD values; and

a circuit for acquiring a weighted average in compliance

15   with said determined texture coordinates and the size of said filtering domain.

12.   The image processing apparatus according to claim 11, wherein

20   said texel to be read from said texture memory is determined based on said operated texture coordinates and said LOD values.

13.   The image processing apparatus according to claim 11,

25   wherein

said circuit for determining a filtering domain of said texel determines said filtering domain by use of two or more

dimensional LOD values.

14. The image processing apparatus according to claim 11, wherein

said circuit for determining a domain for filtering said texel adds up an offset value with a predetermined preset parameter to modify said LOD values.

15. The image processing apparatus according to claim 11, wherein

depending on said LOD values and a parameter indicative of the manner of selecting a plurality of mipmap data, said circuit for determining said filtering domain selects any one of said plurality of mipmap data stored in a texture memory.

16. The image processing apparatus according to claim 11, wherein

said circuit for determining said filtering domain determines the number of texels required to acquire the texture color depending on a predetermined flag.

17. The image processing apparatus according to claim 15, wherein

said circuit for determining said filtering domain unifies said LODs into any one correspondingly to a parameter for specifying the manner of selecting said plurality of mipmap data and depending on a parameter for selecting whether or not

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a plurality of values of said LOD values are to be unified into any one.

18.   The image processing apparatus according to claim 11, wherein

said circuit for acquiring said weighted average includes:

a first circuit for acquiring a blend ratio and a decision flag in said filtering domain from said texture coordinates and said filtering domain;

a second circuit for deciding, by said decision flag, a texel to be excluded from the object for acquiring said weighted average, out of said texels read from said texture memory; and

a third circuit for acquiring a weighted average of the texel as the object in accordance with said blend ratio.

19.   The image processing apparatus according to claim 18, wherein

said circuit for determining said filtering domain modifies said LOD values with a predetermined parameter and determines a final filtering domain based on a flag indicative of how many texels are to be used to acquire the texture color, and wherein

in case of selecting a mode of four texels by said flag indicative of how many texels are to be used to acquire the texture color, said first circuit acquires said decision flag

correspondingly to which one of four-divided areas of a texel

positioned centrally of nine texels contains the center of said

filtering domain.

5   20.   The image processing apparatus according to claim 18,

wherein

said circuit for determining said filtering domain

modifies said LOD values with a predetermined parameter and

determines a final filtering domain based on a flag indicative

10   of how many texels are to be used to acquire the texture color,

and wherein

in case of selecting a mode of nine texels by said flag

indicative of how many texels are to be used to acquire the

texture color, said first circuit acquires said blend ratio and

15   said decision flag correspondingly to four areas into which said

nine texels are divided by lines passing through the center of

said filtering domain, a first one of said four areas containing

the upper left vertex of said filtering domain, a second one

of said four areas containing the upper right vertex of said

20   filtering domain, a third one of said four areas containing the

lower left vertex of said filtering domain, and a fourth one

of said four areas containing the lower right vertex of said

filtering domain.

25   21.   The image processing apparatus according to claim 17,

further comprising:

a circuit for creating an address for reading a texel

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from a texture RAM based on said texture coordinates and said modified LOD values; and

a circuit for sampling texels read from said texture RAM, wherein

5   said second circuit enters said texels sampled by said circuit for sampling texels, and rearranges corresponding texels based on said flag indicative of how many texels are to be used to acquire the texture color.